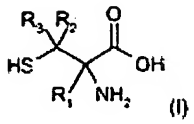
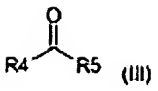
ABSTRACT OF THE DISCLOSURE


(I)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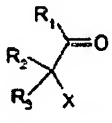
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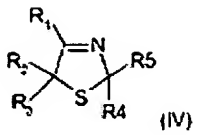
(IV)

The invention relates to a method for producing chiral mercapto amino acids of formula (I) wherein R_1, R_2 and R_3 can represent hydrogen, C_6-C_{12} aryl, C_1-C_6-alkyl-C_6-C_{12}-aryl, C_6-C_{12}-aryl-C_1-C_6-alkyl, C_1-C_{18}-alkyl or C_2-C_{18}-alkenyl, R_2 and R_3 forming a saturated or unsaturated ring. According to said method, a) an oxo compound of formula (II), wherein X represents a leaving group, is reacted in the presence of ammonia or ammonium hydroxide and a sulfide, optionally under phase transfer catalysis or addition of a solubiliser, with a ketone or an aldehyde of formula (III) wherein R_4 and R_5 can represent a C_1-C_{12} alkyl radical or a C_6-C_{20} aryl radical or one of the two radicals H, or R_4 and R_5 together form a C_4-C_7 ring, to form the compound of formula (IV), that b) reacts with HCN to form the corresponding nitrile, whereupon c) the crystallised nitrile is converted, by selective hydrolysis by means of a mineral acid, into the corresponding amide of formula (VI), and d) is then converted into the corresponding chiral amide of formula (VI*) by means of an L amidase or a chiral dissociating acid, whereupon by reaction with an acid, the desired chiral mercapto amino acid of formula (I) is obtained, or e) first the reaction with an acid is carried out, and then the conversion into the chiral mercapto amino acid takes place.